



NEW TOWN HALL, COLCHESTER.

We present our readers with an engraving of the street front of the intended New Town Hall. It is formed of a Roman Doric Pilastrade of six pilasters, with rusticated basement between the pedestals, forming the gaoler's and police departments. The chief entrance is by a bold central archway, and wide flight of steps, leading to the principal floor: it is flanked on either side by semi-circular windows, giving light to the Magistrates' Room and Council Chamber; above these are a range of five Doric windows, with triangular and curved pediments alternated. The whole is surmounted by a bold Doric cornice and balustrade, with a raised central compartment, in which is carved the arms of the Borough of Colchester, with a sculptured ornament. The building consists on the ground-floor (level with the street) of the various apartments appropriated to the purposes of the police and gaoler; fire-proof Record Room, &c. The principal floor consists of entrance hall, vestibule, and grand staircase, the council chamber, magistrates' room, rooms for the judge, counsel and solicitors, jury, &c., and a spacious Judicial Court, approached from the vestibule. The upper floor consists of the large room for public meetings, extending the whole length of the building, and 26 feet wide, with an orchestral gallery: two ante-rooms are also provided on this floor. The plan is by Mr. Raphael Brandon and Mr. John Blore, both of Brompton, who are associated in this work.—*Essex Standard*.

[The artist, it will be observed, has made a mistake in the Latin inscription in front of the building, making it appear that it was erected in 1863 instead of 1843.—Ed.]

## ON THE PRESERVATION OF TIMBER.

REPORT TO THE TREASURER OF THE BRIGHTON SUSPENSION CHAIN PIER COMPANY, UPON THE PRESERVATION OF TIMBER FROM DECAY, AND FROM THE ACTION OF SEA WORMS. BY WILLIAM B. PRICHARD, ESQ., C.E.

SIR,—Agreeably to your request, I have to report to your Directors on the existing mode of preserving the timber and piles at the chain pier, and the method that ought in future to be used in preventing the decay and destruction of the timber, &c.

A certain method of preserving timber from decay, from the ravages of the *Teredo navalis* and other sea worms, is of the utmost importance to the stability of such works as the chain pier, owing to its very foundation being composed of timber piles.

I will first notice the existing modes and means made use of. Stockholm tar has been used, and proved to be of little service; this tar is objectionable, owing to its high price, and also from its being manufactured from vegetable substances. All tars containing vegetable productions must be detrimental to the preservation of timber, especially when used in, and exposed to, salt-water: this tar does not penetrate into the wood, and in a very few weeks the salt acid of the sea will eat it all away.

Common gas or coal tar has been used to a great extent, and its effects are apparent to all. It does a very great deal of harm, forms a hard and brittle crust or coat on the wood, and completely excludes the damp and unnatural heat from the possibility of escape, owing to its containing ammonia, which burns the timber, and in a few years turns brown and crumbles into dust. Indeed, timber prepared with this tar will be completely destroyed on this coast and pier by the ravages of the *Teredo navalis* and the *Limnoria terebrans* in five or six years.

Also Kyan's patent, *corrosive sublimate*, or the *bichloride of mercury* has been used; but has proved equally useless. I inclose you a printed letter on this subject, and I have only to add, that the sleepers kyanised five years ago, and in use at the West India Dock Warehouses, have been discovered to decay rapidly; and the wooden tanks at the Anti-Dry-Rot Company's principal yard are decayed.

Secondly, I would recommend you for the future to use "*Oil of Tur and Pyrolignite of Iron*." This process will, without a doubt, succeed; I have proved in hydraulic works on this coast, that it will fully prevent the decay in timber piles, destroy sea worms, and supersede the necessity of coating the piles with iron nails. In Shoreham harbour, for instance, there is a piece of red pine accidentally infused with pyrolignite of iron, which, after being in use twelve years, is perfectly sound. There is another waling piece, the very heart of English oak, kyanised, and in use only four years, which is like a honey-comb or net-work, completely eaten away by the *Teredo navalis* and other sea worms. I have fully proved the efficiency of this method at different harbours and docks. Sixteen years ago I had timber prepared with it, and in use on the shores of the Dee, and it is at the present moment perfectly sound. Mr. Renwick, C.E., of New York, has used oil of tar with perfect success for many years.

The pyrolignite of iron must be used of very pure quality—and the timber must be dry—afterwards the oil of tar must be applied, and not on any account must it contain a particle of ammonia.

I am given to understand that John Bethell, Esq., of Vauxhall tar works, London, has taken a patent for preparing the oil of tar; therefore you can procure it from his works without going to the trouble of having it prepared.

The immense destruction, by the sea worms on this coast, of timber, and the important fact, that at the chain pier there are not twenty of the original piles remaining at the present time, is of itself sufficient to awaken anxiety in your minds respecting the best mode of saving your valuable property. The subject will have my best consideration.

I am, Sir, your obedient servant,  
WILLIAM B. PRICHARD.

Shoreham, July 26, 1842.

[N.B.—There is a slight mistake in the above Report: Mr. Bethell's patent is for "preparing wood by impregnating it with either the oil of mineral tar, or with pyrolignite of iron, or both." The oil of tar can be purchased at his tar works, and parties purchasing it are licensed to prepare the wood themselves. Mr. Renwick, of New York, has followed Mr. Bethell in the use of the oil of tar, Mr. R.'s patent in America being dated many months after Mr. Bethell's patent in England.—*Editor of "Architect and Civil Engineer."*]

The following is the letter referred to above: it was inserted in the *Brighton Guardian* of May, 1842.

"The phenomenon of dry rot in timber has often been lamented, though almost invariably misunderstood. Certain harmless plants, such as *Merulius destructor* and *Merulius lacrymans* (so called from the quantity of fluid which replenishes the hymenium), the latter a misnomer when connected with dry rot, are held up to public execration as the delinquents chargeable with this work of destruction. They stand, however, fully acquitted in the eye of science, as the deed is done before they make their rudiments are already there in seeds. Like the worm of corruption, they riot in decay. It is the matrix wherein they germinate; but this disintegration of the organized structure has been already consummated. It is